

# Interactions between wild and escaped farmed salmon in Atlantic Canada



# Introduction to ASF

- Environmental NGO
- Mandate for conservation and wise use of wild Atlantic salmon
- Science based advocacy organization
- We have tightly focused concerns about wild/farmed Atlantic salmon issues

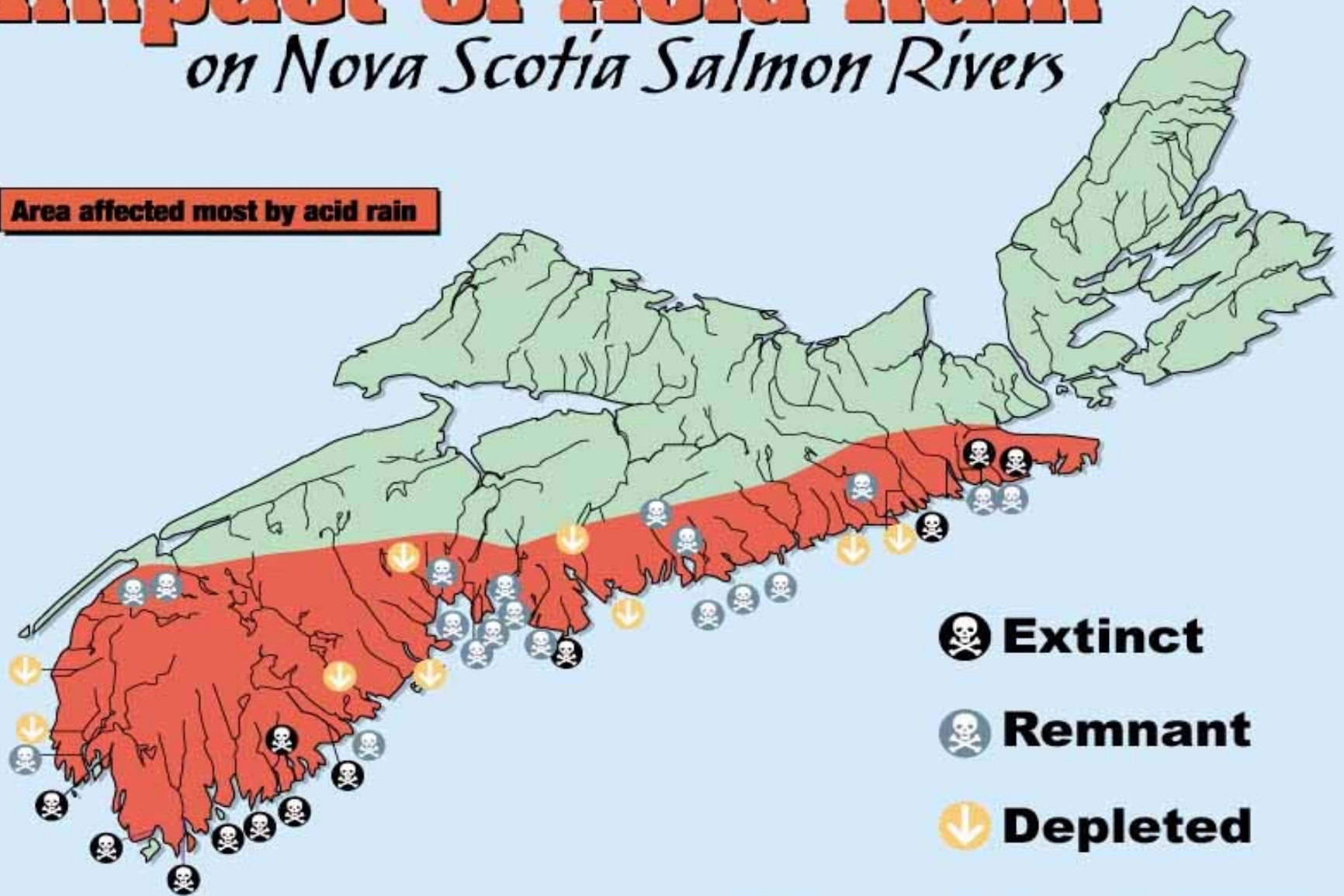




# Impact of Acid Rain

## *on Nova Scotia Salmon Rivers*

Area affected most by acid rain



 **Extinct**

 **Remnant**

 **Depleted**

click on word above for definition

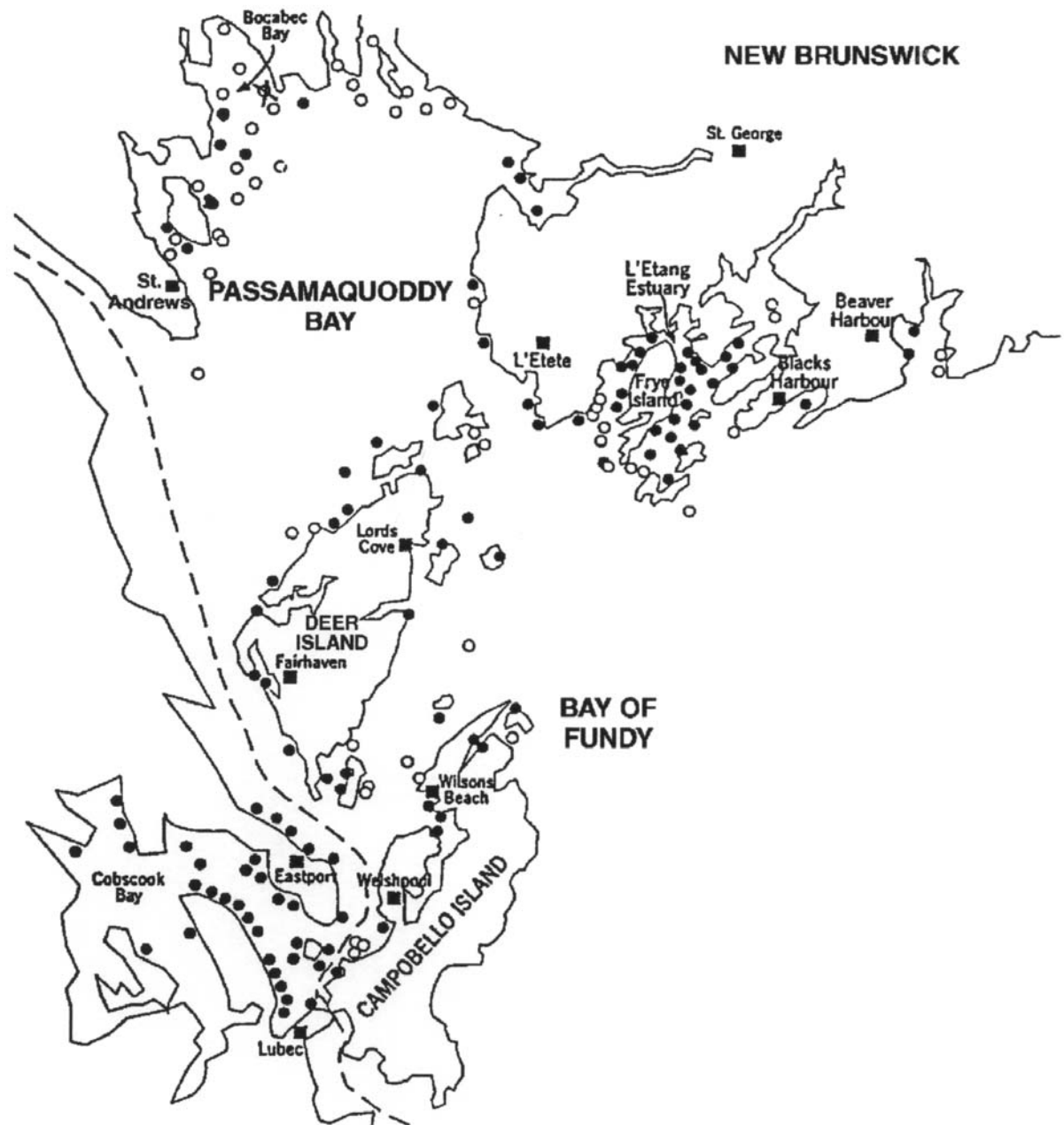
# Causes of declines

- 63 officially sanctioned hypotheses
- Include factors in both fresh water and marine environment
- At sea survival problem. Smolt survival is about an order of magnitude lower now



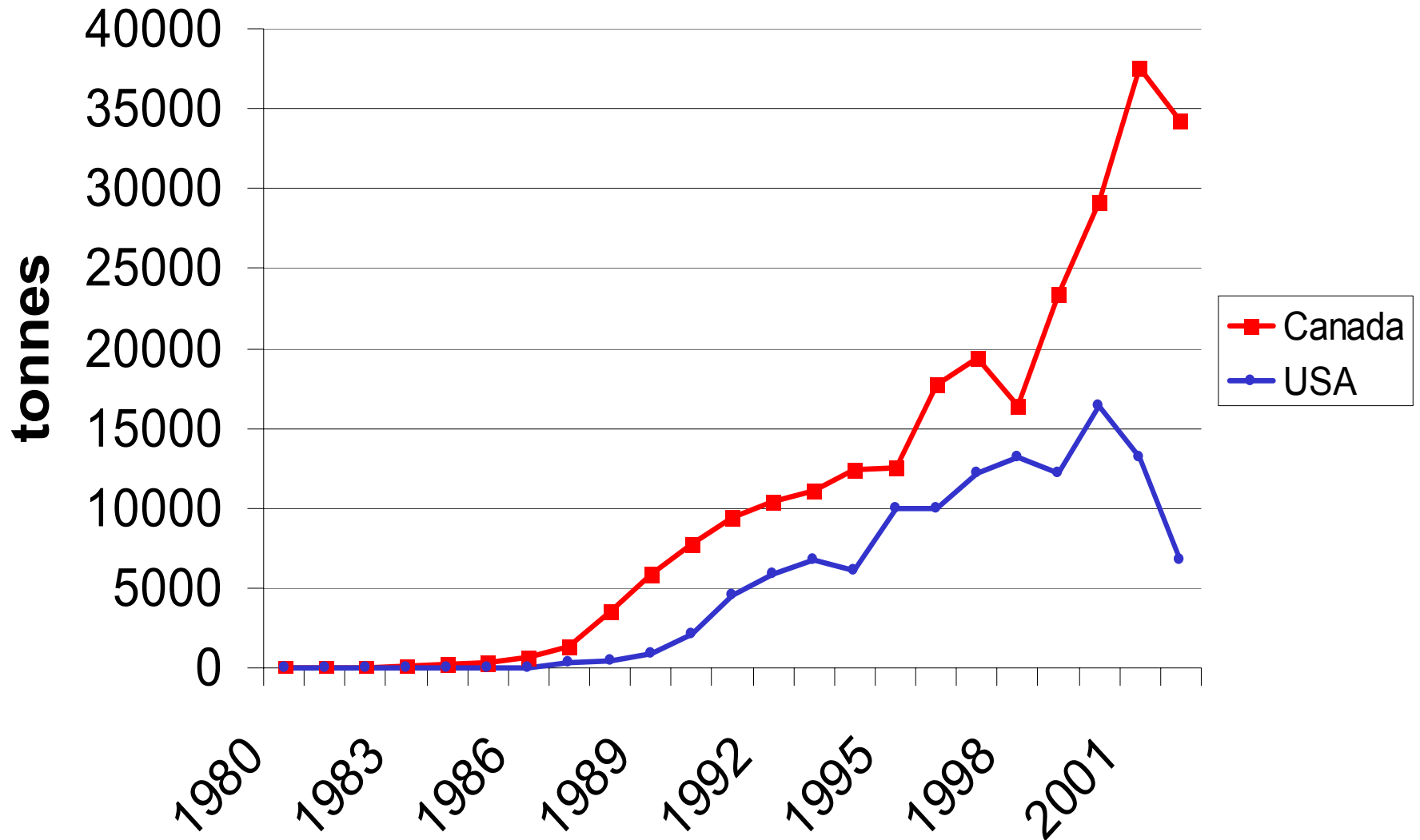


## CAGE SITES





# East Coast farm production



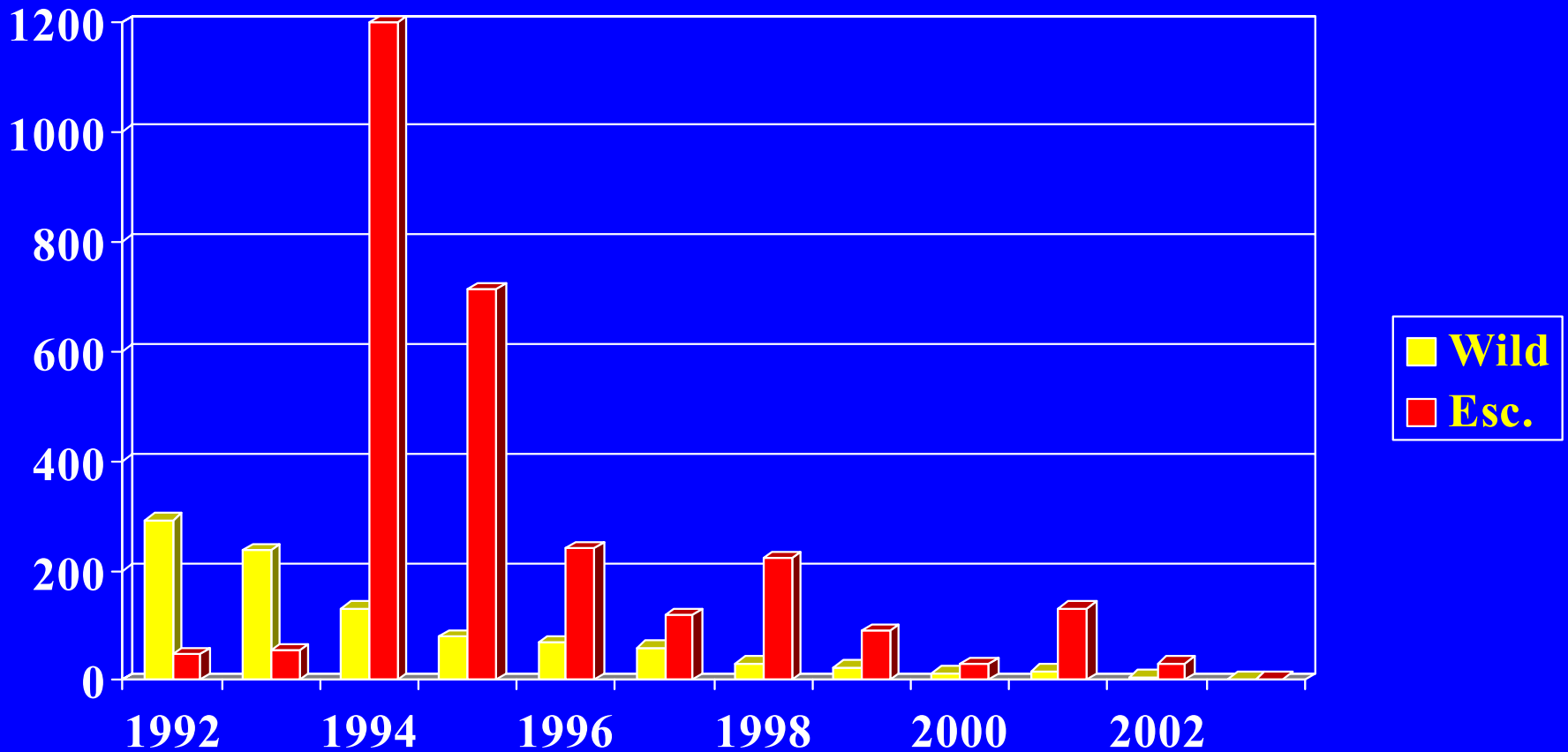


# Aquaculture: ASF Issues

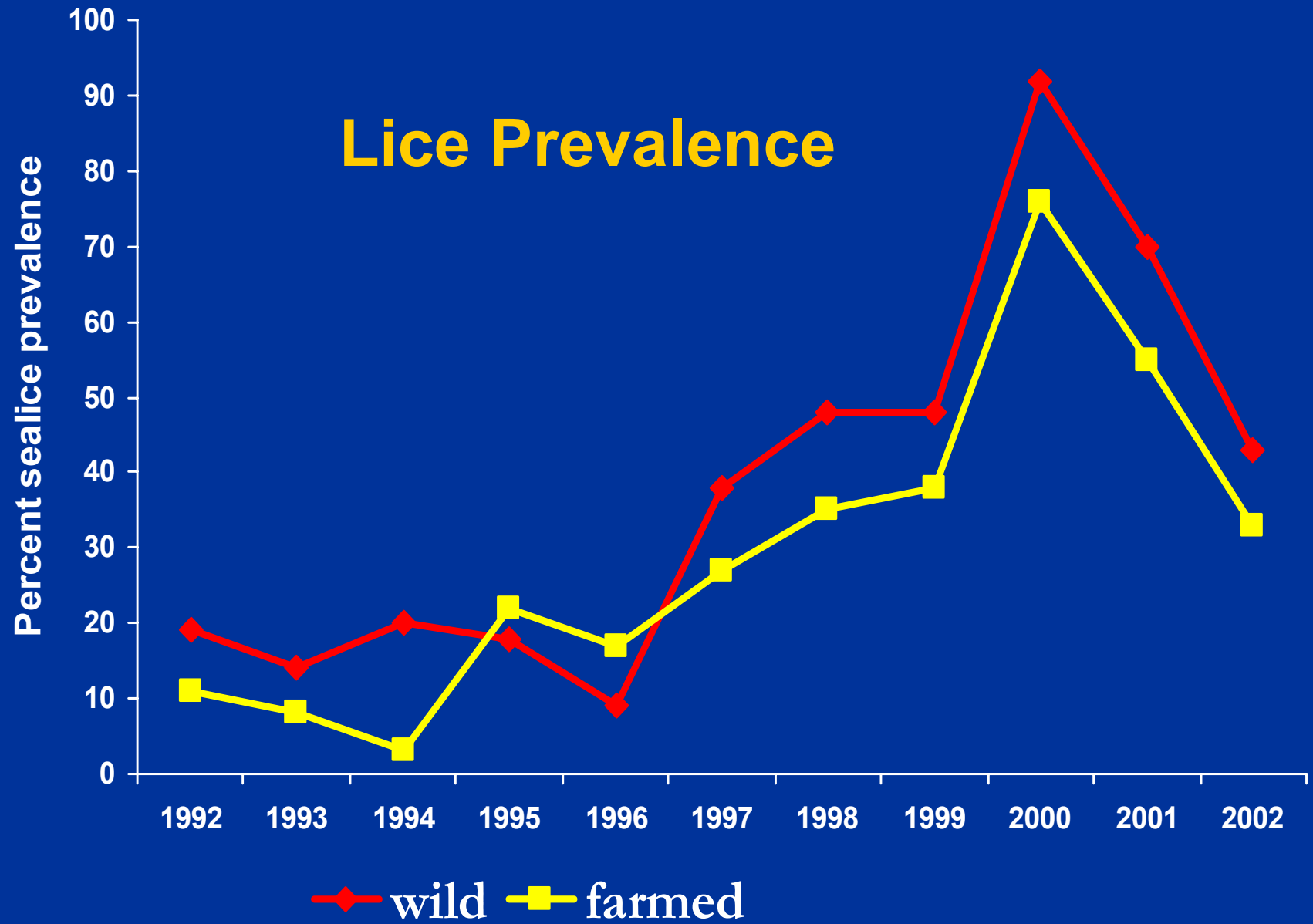
- Genetics
- Diseases and Parasites
- Ecological Interactions
  - Competition
  - Exotic sp.
  - Wastes



# Magaguadavic returns

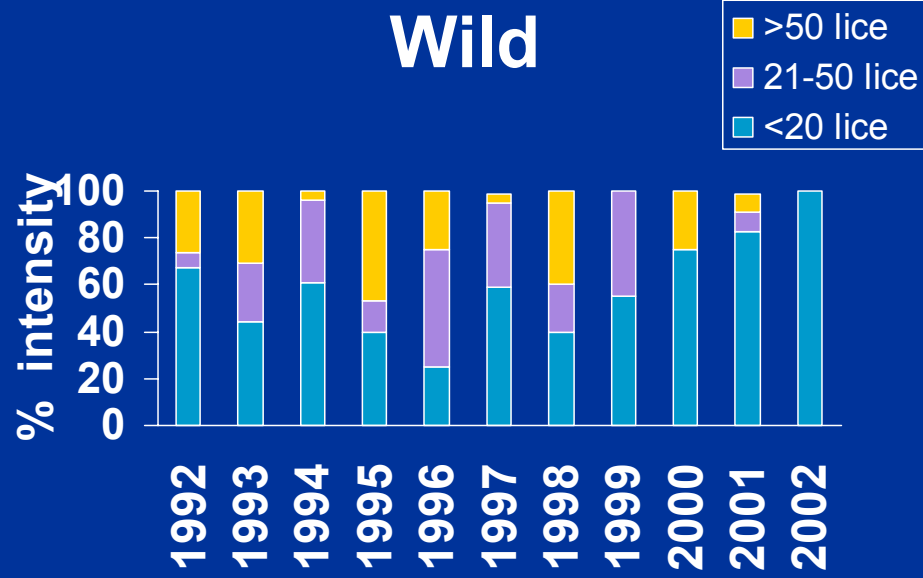


# Lice Prevalence

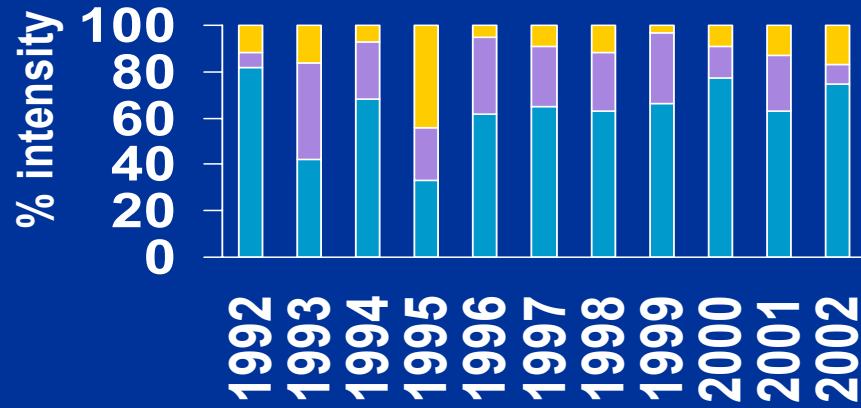




## Wild



## Farmed



# Summary

- Higher prevalence and intensity levels on wild salmon
- Total lice counts similar between wild & farmed salmon
- Damage restricted to escapees
- Valid sampling?

# ISA

- Norway 1984, Canada (East) 1996, Scotland 1998, Chile (disputed) 2000, Faroes 2001, USA 2001, Ireland 2002
- Positive tests, wild (3/15) and escapees (4/58) Magaguadavic 1999. Scotland wild fish in 1999.
- None since



# Conclusion

- Cautiously optimistic
  - Downward trend escapees; containment agreement
  - ISA control
  - Lice: no upward trend
- Production increases mandate tighter standards?